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12/08/86

MUNICIPALITY OF METROPOLITAN SEATTLE
INDUSTRIAL WASTE DISCHARGE PERMIT
APPLICATION FORM
AMENDED

RECEIVED
DEC 10 1986
METRO

Application is hereby made for a permit to discharge wastes into the Municipality of Metropolitan Seattle sewer system in accordance with RCW 90.48.165, RCW 35.58.180, RCW 35.58.200, RCW 35.50.360, and Metro Resolution 2310.

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Section A General Information:

DEPARTMENT OF ECOLOGY

1. Company Name Pioneer Construction Materials NORTHWEST REGION
2. Mailing Address P.O. Box 1730, Seattle, WA 98111
3. Location of Plant Discharging Wastes if different from above 5975 East Marginal Way South, Seattle, WA 98134
4. Name, title, address, and telephone number of person to contact concerning information in this questionnaire:
- Name Leonard Compher Title Manager
- Address P.O. Box 1730, Seattle, WA 98111 Phone No. 764-3000

Section B Product or Service Information:

1. Brief narrative description of manufacturing or service at plant address:

Ready Mix Concrete Plant, Sand & Gravel Storage and Sales.

2. Raw Materials and Chemicals Used in Processes:

Brand Name	Chemical, Scientific or Actual Name	Quantities Average	Used per Day Maximum
	<u>Portland Cement</u>	<u>35,014 tons</u>	<u>167 tons</u>
	<u>Washed Sand & Gravel</u>	<u>246,984 tons</u>	<u>1,054 tons</u>
	<u>Fly Ash</u>	<u>1,842 tons</u>	<u>9 tons</u>
	<u>*Plastocrete 150 (Water Reducing Admixture)</u>	<u>6,500 Gals.</u>	<u>31 Gals.</u>
	<u>*AE 10 Air Entrainment</u>	<u>24 00 Gals.</u>	<u>11 Gals.</u>
	<u>*Daratard 40 (Retarding Admix.)</u>	<u>7 82 Gals.</u>	<u>3 Gals.</u>
	<u>*100XR Pozzolith (Retard. Admix.)</u>	<u>7 82 Gals.</u>	<u>3 Gals.</u>
	<u>*Calcium Chloride (Accel. Admix.)</u>	<u>10,000 Gals.</u>	<u>47 Gals.</u>
	<u>*Pozzolith 555A (Accelerator)</u>	<u>2,000 Gals.</u>	<u>11 Gals.</u>

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3. Describe how raw chemicals and hazardous materials are stored. Have steps been taken to insure that spills resulting from accidental spillage or ruptured containers will not enter a waterway or sewer?

These materials are stored in steel tanks above ground and materials
are pumped into them and then pumped and metered into concrete mix.

4. Products Manufactured or Processed:

Products	Quantity and Unit	
	Average	Maximum
1. <u>Ready Mix Concrete</u>	<u>594 c/y per day</u>	<u>680 c/y per day</u>
2. <u>Sand & Gravel</u>	<u>298 tons per day</u>	<u>340 tons per day</u>
3. _____	_____	_____
4. _____	_____	_____
5. _____	_____	_____

Section C Plant Operational Characteristics:

1. Plant Operations:

	Days per Year	Number of Employees per Shift		
		Day	Night	Swing
Average	<u>240</u>	<u>100</u>	<u>-</u>	<u>5</u>
Maximum	<u>250</u>	<u>110</u>	<u>-</u>	<u>5</u>

2. Explain any seasonal variation you may have in waste discharge volumes, plant operations, raw materials, and chemicals used in processes, and/or production:

The months of November thru February are normally low production
months.

3. Give a detailed description of the sources of all industrial waste within your industry. Describe in detail the treatment given each of these wastes. Include in this description the disposal methods used for these wastes and also for any sludge collected by your waste treatment system. Include a schematic flow diagram showing the sources of all wastes and their flow pattern. Include this information with your application as Exhibit 1.
4. Metal finishing and metal etching industries give a breakdown of capacity and number of tanks by solution type, concentration, and estimated dragout. Identify tanks containing significant quantities of phosphorous, nitrogen, heavy metals, cyanide and etching solutions that concentrate heavy metals. Describe what precautions have been taken to contain and prevent discharge of plating solutions spilled as a result of ruptured or leaking tanks. Include this information with your application as Exhibit 2.

Section D Water Consumption and Loss:

1. Source of Supply City of Seattle Water Supply

2. List water consumption within the plant.
(See attached information)

	Average Gal./Day	Maximum Gal./Day
a. Industrial processing	<u>62,400</u>	<u>71,760</u>
b. Cooling	<u>-0-</u>	<u>-0-</u>
c. Boiler feed	<u>-0-</u>	<u>-0-</u>
d. Water incorporated into product	<u>20,790</u>	<u>23,909</u>
e. Other (Specify)	<u>-0-</u>	<u>-0-</u>

Raw water treatment (specify water conditioning chemicals used) _____

3. List discharge or water losses to:

	Average Gal./Day	Maximum Gal./Day
a. Municipal sewer (industrial and sanitary waste water)	<u>28,000</u>	<u>32,000</u>
b. Surface waters and storm sewers (specify) storm water that collects in slurry recycle system	<u>10,000</u>	<u>16,000</u>
c. Waste haulers	<u>-0-</u>	<u>-0-</u>

Area 1 Area 1*

WATER CONSUMPTION

Pioneer Construction Materials Company has, historically, not kept records that reflect actual water consumption. During the month of November 1986, Pioneer kept a log of the volume discharged into the METRO sanitary sewer; the discharge averaged 30,000 gallons per day combined process water and stormwater. This average was exceeded during periods of heavy rainfall. The daily discharge will vary depending upon production, truck trips per day, etc. Therefore, Pioneer requests authorization to discharge 32,000 gallons per day process water and 16,000 gallons per day stormwater.

4. Describe all waste water treatment equipment or processes in use: See Exhibit 1.
- _____
- _____
- _____

5. Planned waste treatment improvements: (Submit on separate sheet as Exhibit 3). Describe any additional treatment or changes in waste disposal methods in planning or under construction. Study in process to determine feasibility of reducing volume of stormwater in slurry recycle system.
6. Give any additional information or comments you feel necessary to clarify this application as Exhibit 3. Include all information for previous questions, where additional space is necessary as part of Exhibit 3.
7. The information given on this application is correct and accurate to the best of my knowledge.

Leonard A. Compher.
Signature

Leonard A. Compher
Printed

December 8, 1986
Date

Manager
Title

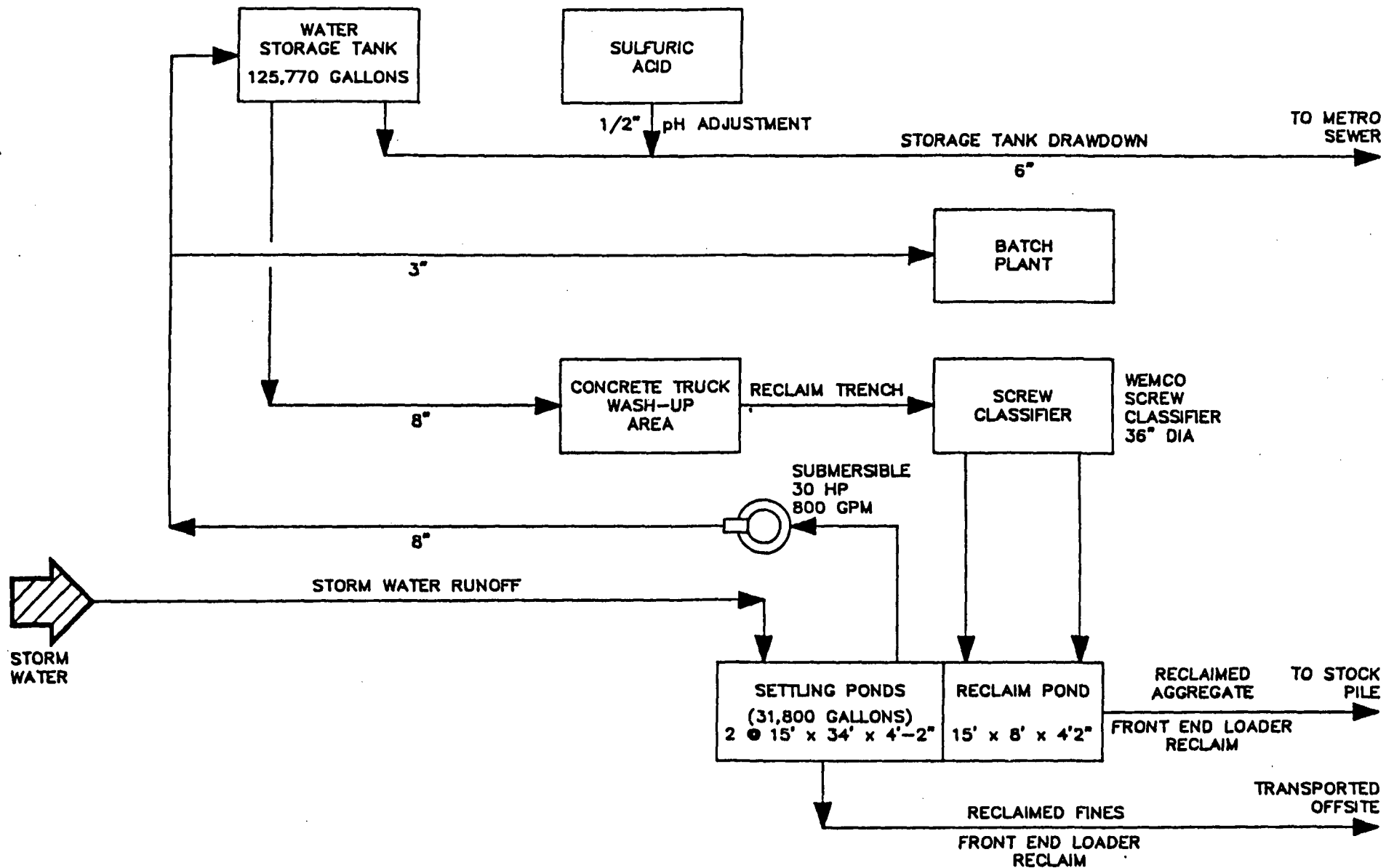
* Please specify units. For example: Tons/day, pounds per day, barrels per day, etc.

Exhibit 1

Pioneer Construction Materials Company batches concrete at its E. Marginal Way facility. A percentage of the concrete produced is returned each day. Part of the returned concrete is used to make ecology blocks, the remainder is mixed with water and processed through an aggregate reclaim and truck washout station. The station consists of a washout flume, screw classifier, slurry recycle pond, aggregate reclaim pond, and elevated slurry tank. The processing of returned concrete and the washup of the interior and exterior of concrete trucks produces a slurry. The slurry is used in the batch plant as makeup water; the excess is discharged into the Metro sewer system. The reclaimed fines are disposed of at approved landfills. The reclaimed aggregate is sold commercially. (See Block Diagram Exhibit 1a). The slurry is a lime stabilized waste and therefore within the effluent limitations presently imposed by METRO. Nonetheless, the wastewater will be neutralized with the target pH between 9.5-11.5. Sulphuric acid will be added on a continuous basis during the entire time the wastewater is being discharged into the METRO sewer. A metering pump will be set for a predetermined GPM based on the pH neutralization curve for calcium oxide. (See Conceptual Design Exhibit 1b).

At the present time stormwater from the process area collects in the slurry recycle system and mixes with the process water. (See Area 1 Exhibit 1c).

EXHIBIT 1a



PIONEER CONSTRUCTION MATERIAL COMPANY
BLOCK FLOW DIAGRAM
CONCRETE TRUCK WASH-UP FACILITY